

ABSTRACT

The present invention provides a resistance-type oxygen sensor, and an oxygen sensor device and an air/fuel ratio control system using same. The present invention relates to a resistance-type oxygen sensor with suppressed temperature dependence, wherein: (1) a gas detection unit composed of an oxide semiconductor with a resistance value varying according to temperature and the oxygen partial pressure of atmospheric gas and a temperature compensation unit composed of a conductor with suppressed dependence of a resistance value on oxygen partial pressure are connected in series; (2) the temperature compensation unit is composed of an oxygen ion conductor; and (3) an electrode for electric contact with the temperature compensation unit is exposed to the atmospheric gas and is a porous body; an oxygen sensor device and an air/fuel ratio control system.